WASHINGTON DC - On January 10, 2013, Rep Mike Honda published the following op-ed regarding smart electronics and green tech in Politico .

We Must Tap Energy-Efficiency Opportunities
Politico
By REP. MIKE HONDA and JEAN-BAPTISTE LOIRE
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That President Barack Obama has already named climate change as one of his top priorities in his second term is welcome and timely news. The failure last month of negotiators meeting in Doha, Qatar, to reach a meaningful international agreement to reduce greenhouse gas emissions reminds us that individual action will always be the best way to prevent climate change. Thankfully, that work isn't as hard as it sounds, and it is where Obama will find fertile ground going forward. In reducing energy consumption — and corresponding carbon emissions — there is much to be gained from untapped energy-efficiency opportunities. It's that simple; and when it comes to electronics, it's about being smart.

The good news is that we can get the same amount of work done with less energy. On the energy-efficiency front, however, we have only just begun to tap available opportunities and build upon the success of efforts like the Department of Energy's Energy Star certification program. The U.S. economy today is achieving only 14 percent of its energy-efficiency potential. Clearly, there is still a lot of room for improvement.

Our Silicon Valley, already the driving force in the electronics revolution, is poised to make even greater contributions toward improving America's energy efficiency. The American Council for an Energy-Efficient Economy suggests that semiconductor-related technologies can support an economy that is 35 percent larger by 2020 while limiting growth in energy use to just 7 percent.

These are the kinds of energy savings that we must witness if we are to make our country — and our planet — greener, cleaner and smarter. That is why Rep. Honda will introduce the Smart Electronics Act in the 113th Congress to address the greenhouse gas impacts and energy costs of proliferation of electronic devices throughout the world.

Smart electronics integrate available and emerging technologies to bring new levels of efficiency to hundreds of devices we use every day. For example, the semiconductors responsible for adjusting the electrical current between our wall socket and our plugged-in devices work in tandem with control chips to reduce power loss. This combination can dramatically alter the energy use of electronic gadgets and appliances.

Another example of employing smart electronics is replacing the simple on/off switch of an

in-wall air conditioner with a chip-controlled, variable-speed electric motor that can better maintain a steady temperature.

This saves one about $70 in annual energy costs. That adds up to as much as $900 million in annual savings for all residential air conditioners in the U.S.

There's also plenty of room to improve the efficiency of consumer electronics products such as televisions and tablet computers. Practically all of these gadgets draw stand-by power to support "instant-on" features. Smart design can raise the efficiency of power and control electronics in these products to more than 95 percent, compared with today's typical 75 percent to 80 percent efficiency.

Other opportunities for dramatic efficiency improvements related to semiconductor technology include the transition to LED lighting (which provides at least five times more light per watt than older bulbs) and the accelerating transition to hybrid and full electric automobiles.

Both common sense and real-world experience point to improved energy efficiency as a powerful tool to enhance energy independence and ensure lasting economic strength. We need continued innovation in smart electronics technology, however, to make these tools affordable, commonplace and up-to-date. We also need to make consumers aware of the benefits of these innovations and give them the information they need to judge device efficiency.

As we start 2013, let's make a New Year's resolution — as industry leaders and policymakers — to help consumers make the smart choice for both the planet and their pocketbooks by tapping this energy-efficiency resource.

Rep. Mike Honda represents Silicon Valley and is the communications vice chairman of the Sustainable Energy and Environment Coalition in Congress. Jean-Baptiste Loire is president of Infineon Technologies North America.

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